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N.D.O.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 119859

Received at London Office

31 MAY 1950

Date of writing Report 16 Feb 1950 When handed in at Local Office 23 Feb 1950 Port of London
No. in Survey held at Bedford Date, First Survey 14 Oct 1949 Last Survey 20 JANUARY 1950
Reg. Book. Single on the Twin Triple Screw vessel M/V "BRITISH GENERAL" Number of Visits SEVEN
Built at Haveron Hill By whom built Furners S. B. Co Ltd Yard No. 434 When built 1950
Owners British Tanker Co Ltd Port belonging to London
Oil Engines made at Bedford By whom made W. H. Allen, Sons & Co Ltd Contract No. K475236 When made 1950
Generators made at " By whom made " Contract No. E475240 When made 1950
No. of Sets 2 Engine Brake Horse Power 132 M.N. as per Rule " Total Capacity of Generators 75 Kilowatts.
Is Set intended for essential services Yes

OIL ENGINES, &c.—Type of Engines Diesel 2 or 4 stroke cycle 4 Single or double acting single
Maximum pressure in cylinders 750 psi Diameter of cylinders 240Z Length of stroke 300Z No. of cylinders 4 No. of cranks 4
Mean indicated pressure 86.6 psi Firing order in cylinders 1.4.3.2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 282Z
Is there a bearing between each crank Yes Moment of inertia of flywheel 165 ft² lb Revolutions per minute 450
Flywheel dia 1200Z Weight 3500 lbs Means of ignition Compression Kind of fuel used Pool Gas oil
Crank Shaft, dia. of journals as per Rule 130.5mm Crank pin dia. 150Z Crank Webs Mid. length breadth 204Z Thickness parallel to axis shrunk
Flywheel Shaft, diameter as per Rule 140Z Intermediate Shafts, diameter as per Rule General armature, moment of inertia 165 ft² lb 354
Are means provided to prevent racing of the engine when declutched Yes Means of lubrication Forced Kind of damper if fitted ✓
Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material ✓
Cooling Water Pumps, No. 1 Fresh Water each engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓
Lubricating Oil Pumps, No. and size One Rotary Gear type each engine

Air Compressors, No. 48 No. of stages " Diameters " Stroke " Driven by "
Scavenging Air Pumps, No. " Diameter " Stroke " Driven by "

AIR RECEIVERS:—Have they been made under Survey ✓ State No. of Report or Certificate "

Is each receiver, which can be isolated, fitted with a safety valve as per Rule ✓

Can the internal surfaces of the receivers be examined ✓ What means are provided for cleaning their inner surfaces ✓

Is there a drain arrangement fitted at the lowest part of each receiver ✓

High Pressure Air Receivers, No. " Cubic capacity of each " Internal diameter " thickness "

Seamless, lap welded or riveted longitudinal joint " Material " Range of tensile strength " Working pressure by Rules "

Starting Air Receivers, No. Two Total cubic capacity 10 cu ft Internal diameter 18" thickness 5/16"

Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 26/30 Tons Working pressure by Rules 300 psi

ELECTRIC GENERATORS:—Type Open

Pressure of supply 110 volts. Full Load Current 682 Amperes. Direct or Alternating Current D.C.

If alternating current system, state the periodicity ✓ Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown

on and off yes Generators, are they compounded as per Rule yes is an adjustable regulating resistance fitted in series with each shunt field yes

Are all terminals accessible, clearly marked, and furnished with sockets yes Are they so spaced ✓

or shielded that they cannot be accidentally earthed, short circuited, or touched yes Are the lubricating arrangements of the generators as per Rule yes

If the generators are under 100 kw. full load rating, have the makers supplied certificates of test yes and do the results comply with the requirements yes

If the generators are 100 kw. or over have they been built and tested under survey ✓

Details of driven machinery other than generator "

PLANS.—Are approved plans forwarded herewith for Shafting ✓ Receivers ✓ Separate Tanks ✓

Have Torsional Vibration characteristics if applicable been approved 5 July 1948 Armature shaft Drawing No. E/137630

SPARE GEAR 3 Injectors + Nozzles, 3 inlet + 3 Exh Valves complete, 3 Relief + 3 Indicator Valves.

Starting Valve, 2 Pistons, 3 sets Piston Rings, 2 Cyl Heads, 2 Liners, 2 sets Cyl Hd Studs

Big end Brg with Bolts 4 main Brg Bolts, 1 Fuel Pump, 2 Gudgeon pins 1 small end Brg.

Fuel Injector Suction Pipes 1 set Arrorted Nuts & Bolts, Two Brush Holders + one set Brushes

Generator. 1 set spares for Fuel Water Pump + Motor

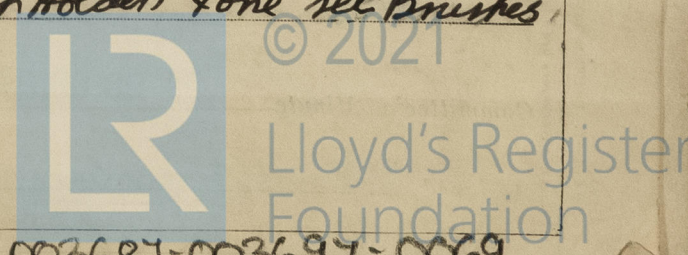
The foregoing is a correct description,

W. H. ALLEN, SONS & Co., Ltd. Manufacturer.

A. H. Clarke.

20.1.50.

003687-003697-0069



Dates of Survey while building { During progress of work in shops - - 1949: Oct 14, 21, Nov 22, 25, 29 (1950: Jan 17, 20)
 { During erection on board vessel - - -
 Total No. of visits *Seven (See above)*

Dates of Examination of principal parts—Cylinders *29.11.49* Covers *14.10.49 21.10.49* Pistons *25.11.49* Piston rods *✓*

Connecting rods *25.11.49* Crank and Flywheel shafts *22.11.49* Intermediate shafts *✓*
Set A LLOYDS 180519-9-49 G.B. 22.11.49 (P.D.)

Crank shaft { Material *Steel* Tensile strength *Set B, LLOYDS, D.K.L. 1837 29.9.49. 22.11.49 (P.D.)*
 { Elongation Identification Marks

Flywheel shaft, Material Identification Marks

Identification marks on Air Receivers *(2) 81/480286 LLOYDS TEST T.D.S. H.T. 00016 W.P. 30016 20.6.49 H. 292 + H. 293*

Is this machinery duplicate of a previous case _____ If so, state name of vessel _____

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *The Diesel Generator sets have been constructed under special survey in accordance with the requirements of the Rules, the steel was made at works approved by the Committee; the workmanship is good, and on completion the generator sets were tested upon the bench under full and overload conditions with satisfactory results*

Note: *The sets have been despatched to Limerick S.B. Co for fitting on board the vessel*

These generator have been recently fitted aboard, tried out under working conditions & found satisfactory.

Ch. Stuart

The amount of Fee *2 sets* £ *13 : 4 : 0* When applied for *23 FEB 1950*
 Travelling Expenses (if any) £ *19 : 1* When received *19*

Committee's Minute *FRI 23 JUN 1950*
 Assigned *See F.E. weekly rpt.*